

Appln. No.: 10/690,377  
Amendment Dated December 22, 2006  
Reply to Office Action of September 29, 2006

NSG-209US1

**Amendments to the Drawings:**

The attached sheets of drawings include changes to Figures 2A and 9. These sheets replace the original sheets.

Attachment

**Remarks/Arguments:**

Claims 1 and 3 have been amended. No new matter is introduced herein. Claims 1-5 are pending.

Claim 1 has been amended. No new matter is introduced herein. Claim 1 has been amended to clarify the image reading apparatus includes a separate adjusting mechanism. Basis for the amendment may be found, for example, on page 22, lines 15-22.

Claim 3 has been amended to clarify that the light transmitting original and the reflecting sheet original are alternatively positioned. In addition, claim 3 has been amended to include the feature that the lifting mechanism is configured to change a distance between the guide rail and the contact image sensor unit to one of a first predetermined distance and a second predetermined distance corresponding to the light transmitting original and the reflecting original. Claim 3 has also been amended to clarify that the lifting mechanism is configured to maintain a resolution of an image corresponding to the light transmitting original or the reflecting sheet original. Basis for the amendment to claim 3 can be found, for example, page 2, line 17-page 3, line 5; page 4, lines 1-6; page 17, lines 11-21; page 22, lines 15-22; and Figs. 2A-2C.

With respect to claim 3, as described at page 2, line 17-page 3, line 5 and page 4, lines 1-6, of the subject disclosure, an image reading apparatus may read both a sheet original and a light transmitting original. However, because the lens of the contact image sensor unit has a short focusing depth, the light transmitting original should be set to a height position similar to that of the sheet original. According to an embodiment of the subject invention, described at page 17, lines 11-21, the lens is focused to the original surface of a light transmitting original 1a by moving the contact lens sensor unit 3a in the direction of the original surface of the light transmitting original by a distance Z (Figs. 2A- 2C). Furthermore, as described at page 22, lines 15-22, an exemplary image reading apparatus that reads both a sheet original and a light transmitting original can employ the adjusting mechanism with a change of the type of the originals. Accordingly, based on the description in the subject disclosure, the skilled person would understand that the lifting mechanism is configured to change a distance between the guide rail and the contact image sensor unit to one of a first predetermined distance and a second predetermined distance corresponding to a light transmitting original and a reflecting sheet original.

The drawings were objected to because the drawings did not show that the image reading apparatus reads a light transmitting original and a reflecting sheet original, as recited in claim 3. Fig. 2A has been amended to include the element 1a' as the reflecting sheet original and the subject disclosure has been amended to include a corresponding description of reflecting sheet original 1a' at the paragraph on page 22 beginning at line 15. Support for the amendment to Fig. 2A and the subject disclosure can be found, for example, at page 2, line 17-p. 3, lines 2-5 and page 22, lines 15-22 of the original disclosure.

In addition, Fig. 9 was objected to because Fig. 9 refers to cover glass 23 as element "23a." Element 23a in Fig. 9 has been amended to be "23." Furthermore, the drawings were objected to because, in the subject disclosure, reference characters "14a" and "1b" both appear to designate "a light transmitting original" and because reference character "14a" appears to designate "a light transmitting original," "a light transmitting" and a "a light source." The subject disclosure cites a "line light source for the light transmitting original 14a" and a "line light source for the sheet original 14b." The language of these phrases have been clarified to recite a "line light source 14a" and a "line light source 14b" in the subject disclosure. Accordingly, Applicants respectfully request that the objection to the drawings be withdrawn.

Claims 1, 2 and 5 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Namely, claim 1 appears to recite that the adjusting mechanism is used to move a contact image sensor unit on a guide rail and also to adjust a position of the guide rail. Claim 1 has been amended to clarify that the image reading apparatus moves a contact image sensor unit on a guide rail and includes a separate adjusting mechanism. Accordingly, Applicants respectfully request that the rejection of claims 1, 2 and 5 under 35 U.S.C. §112, first paragraph be withdrawn.

Claims 3-5 were rejected under 35 U.S.C. §112 second paragraph, as being indefinite because claim 3 does not disclose whether the light transmitting original and the reflecting sheet original are both on the image reading apparatus or alternatively positioned at different times, how a resolution for both images is maintained and because the phrase "the image" lacks proper antecedent basis. Claim 3 has been amended for antecedent basis and to clarify that the light transmitting original and the reflecting sheet original are alternatively positioned. Claim 3 has also been amended to clarify that an image corresponds to the light transmitting original or the reflecting sheet original and how a resolution for both images is maintained. Accordingly, the Applicants respectfully request that the rejection of claims 3-5 under 35 U.S.C. §112, second paragraph be withdrawn.

Claims 3-5 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ando (U.S. Patent No. 5,362,958) in view of Applicants admitted prior art (herein AAPA) (Fig. 12 and the subject specification, at page 26, line 19 - page 28, line 1). This ground for rejection is overcome by the amendment to claim 3. In particular, neither Ando nor AAPA disclose or suggest:

...the lifting mechanism being configured to change a distance between the guide rail and the contact image sensor unit to one of a first predetermined distance and a second predetermined distance corresponding to the light transmitting original and the reflecting sheet original to maintain a resolution of an image corresponding to the light transmitting original or the reflecting sheet original...

as required by claim 3.

Ando discloses, in Figs. 2, 6(b) and 7, an image reading section 1 that is continually adjustable by a spiral shaft 222 (Fig. 7) to change a focal distance between the image reading section 1 during the reading of the document original (Col. 6, lines 24-37 and Col. 9, line 29-44). Ando does not disclose or suggest that the lifting mechanism is configured to change a distance between the guide rail and the contact sensor unit to one of a first predetermined distance and a second predetermined distance corresponding to the light transmitting original and the reflecting sheet original, as required by claim 3. Ando, instead, detects a state where a portion of the document original is curved upward from the glass surface, calculates a surface profile of the curved portion and adjusts the focal distance of the image reading section 1 using the surface profile data (Col. 9, lines 45-55). Ando is silent regarding a lifting mechanism that can be adjusted to a first predetermined distance and a second predetermined distance corresponding to a light transmitting original and a light reflecting original. Thus Ando does not include all of the features of claim 3.

Furthermore, Ando concerns only light reflecting originals and teaches that a reflected light spot is used to determine the position of the light reflecting original. (See col. 6, line 60 - col 7, line 59). This mechanism, however, would not work properly with a light transmitting original as the light spot would be reflected by an object beyond the light transmitting original and thus would result in the wrong focal distance being set.

AAPA disclose, in Fig. 12 and page 26, line 19 - page 28, line 1, a conventional contact image sensor unit for reading a light transmitting original and a reflecting sheet original. AAPA does not make up the features that are lacking in Ando because AAPA does not disclose or

suggest that the lifting mechanism changes a distance to one of a first and a second predetermined distance corresponding to a light transmitting original and a light reflecting original. Thus, AAPA does not include all of the features in claim 3.

Because Ando and AAPA, either alone or in combination, do not disclose or suggest all of the features of claim 3, claim 3 is not subject to rejection under 35 U.S.C. §103(a) as being unpatentable over Ando in view of AAPA. Claim 4 depends from claim 3 and claim 5, to the extent claim 5 depends from claim 3, are not subject to rejection under 35 U.S.C. §103(a) as being unpatentable over Ando in view of AAPA for at least the same reasons as claim 3.

Applicant appreciates the indication in the Office Action that claims 1, 2 and 5, to the extent that it depends from claim 1, would be allowed if the §112, first paragraph rejections are overcome without changing the scope of the invention.

In view of the foregoing amendments and remarks, Applicant request that the Examiner reconsider and withdraw the rejection of claims 1-5.

Respectfully submitted,

  
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December 22, 2006

  
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